(Rs. in lakhs)

Sl. No.	Name of States	Loan Amount Sanction	Loan Amount Disbursement	K.J. Grant Amount Sanction	K.J. Grant Amount Disbursement
24.	Uttar Pradesh	60404	37836	305	153
25.	West Bengal	0	405	339	282
26.	Dadar Nagar Haveli	0	0	1	1
	TOTAL	877064	622055	13582	12691

Note: Disbursement are sometimes more than sanctions because these are against sanctions of earlier period also.

R and D efforts for energy efficiency

2589. SHRI SANTOSH BAGRODIA: Will the Minister of POWER be pleased to state:

(a) whether there is any need to double R&D efforts to maximize energy efficiency;

(b) if so, whether any steps have been taken in this regard; and

(c) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRIMATI JAYAWANTI MEHTA): (a) to (c) Yes, Sir. A number of organisations are involved in promoting R&D efforts for energy conservation. Some of these are Petroleum Conservation Research Association, Central Power Research Institute, Central Fuel Research Institute, Tata Energy Research Institute, National Productivity Council and Energy Management Centre. In addition the Ministry of Power gives subsidies to different utility/implementing agencies spread for implementing pilot projects on power system audits, load management schemes, development of single phase high voltage distribution system, installation of Amorphous core distribution transformers and different R&D schemes giving effect to energy conservation.

Energy intensity in India is 1.5 times and 3.7 times higher when compared to USA and Japan respectively. Among the sub sectors of manufacture, India consumes 98% more in paper, 140% more in crude steel and 110% more in petro-chemical. Thus, it is evident from the energy consumption norms, that there is a need to implement energy efficiency measures and increase R&D efforts in the country. There are many R&D institutions attached to various major industrial sub sectors working for improving R&D and also on energy efficiency.

The Government of India has introduced the Energy Conservation Bill, 2000 in the Lok Sabha in the Budget Session of the Parliament. The Bill provides for efficient use of energy and its conservation and matters related and incidental thereto. It *inter-alia* provides for the establishments of Bureau of Energy Efficiency (BEE) and provides for setting up of Energy Conservation Fund both at the States and Central level. The Bill also provides for undertaking research, development and demonstration of energy efficiency projects.

However, a large corpus of fund would be required to undertake research development functions effectively on a countrywide basis for this purpose.

On supply side steps are being taken to improve the operating efficiency of the power plants by carrying out energy audit, systematic renovation and modernisation of units and life extinction programmes. Latest technology such as Circulating and Pressurised Fluidised bed Conbustion (CFBC and PFBC), Coal Washing/ beneficiation, computer aided upgradation of sub-stations, supercritical pulverised Fuel units and Integrated Gasification Combined Cycle (IGCC) plants are also being introduced in the phased manner, in the country to improve energy efficiency in new plants. R&D inputs are also envisaged in these areas.